



Crastin® FGS600F40 BK594 (PRELIMINARY)

THERMOPLASTIC POLYESTER RESIN

Crastin® FGS600F40 BK594 is an unreinforced lubricated, low viscosity polybutylene terephthalate resin for injection molding. It has been developed for consideration into applications such as parts for the food industry.

FOOD CONTACT

This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in Europe and the USA when meeting applicable use conditions. For details, individual compliance statements are available from your DuPont representative.

总说明

树脂鉴别	PBT	ISO 1043
制品标识码	>PBT<	ISO 11469

流变性能

熔体质量流动速率	36 g/10min	ISO 1133
熔体质量流率, 温度	250 °C	ISO 1133
熔体质量流率, 载荷	2.16 kg	ISO 1133
模塑收缩率, 平行	1.8 %	ISO 294-4, 2577
模塑收缩率, 垂直	1.8 %	ISO 294-4, 2577

机械性能

拉伸模量	2700 MPa	ISO 527-1/-2
屈服应力	58 MPa	ISO 527-1/-2
屈服伸长率	10 %	ISO 527-1/-2
名义断裂伸长率	20 %	ISO 527-1/-2
断裂伸长率	30 %	ISO 527-1/-2
弯曲模量	2500 MPa	ISO 178
简支梁无缺口冲击强度, +23°C	N kJ/m ²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	4 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.38 -	

热性能

熔融温度, 10°C/min	225 °C	ISO 11357-1/-3
玻璃化转变温度, 10°C/min	55 °C	ISO 11357-1/-2
热变形温度, 1.80 MPa	57 °C	ISO 75-1/-2
线膨胀系数, 平行	110 ^[1] E-6/K	ISO 11359-1/-2
线膨胀系数, 垂直	120 ^[1] E-6/K	ISO 11359-1/-2
熔体	0.21 W/(m K)	
熔体的比热	2110 J/(kg K)	

[1]: From Crastin® S600F40 NC010



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燃烧性能

1.5mm名义厚度时的燃烧性	HB class	IEC 60695-11-10
测试用试样的厚度	1.5 mm	IEC 60695-11-10
燃烧性 - 氧指数	22 %	ISO 4589-1/-2
FMVSS Class	B -	ISO 3795 (FMVSS 302)
燃烧速率, 厚度: 1毫米	<80 mm/min	ISO 3795 (FMVSS 302)

其它性能

吸湿性, 2mm	0.2 %	类似ISO 62
吸水性, 2mm	0.4 %	类似ISO 62
密度	1320 kg/m ³	ISO 1183
熔体密度	1110 kg/m ³	

注塑

建议干燥	是
干燥温度	120 °C
干燥时间, 除湿干燥机	2 - 4 h
加工前水分含量	≤ 0.04 %
优良熔体温度	250 °C
注塑 熔体温度	240 °C
注塑 熔体温度	260 °C
优良模具温度	80 °C
模具温度	30 °C
模具温度	130 °C
保压范围	≥ 60 MPa
保压时间	4 s/mm
背压	As low as possible MPa
喷射温度	170 °C

耐化学性

酸类

- ✓ 醋酸 (5g/100g), 23°C
- ✓ 柠檬酸溶液 (10g/100g), 23°C
- ✓ 乳酸 (10g/100g), 23°C
- ✗ 盐酸 (36g/100g), 23°C
- ✗ 硝酸 (40g/100g), 23°C
- ✗ 硫酸 (38g/100g), 23°C
- ✗ 硫酸 (5g/100g), 23°C
- ✗ 铬酸溶液 (40g/100g), 23°C

碱类

- ✗ 氢氧化钠溶液 (35g/100g), 23°C
- ✓ 氢氧化钠溶液 (1g/100g), 23°C

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- ✓ 氨水(氢氧化铵) (10g/100g), 23°C

醇类

- ✓ 异丙醇, 23°C
- ✓ 甲醇, 23°C
- ✓ 乙醇, 23°C

碳氢化合物

- ✓ n-乙烷, 23°C
- ✓ 甲苯, 23°C
- ✓ 异辛烷, 23°C

酮类

- ✓ 丙酮, 23°C

醚类

- ✓ (二)乙醚, 23°C

矿物油

- ✓ SAE 10W40号多效润滑油, 23°C
- ✗ SAE 10W40号多效润滑油, 130°C
- ✗ SAE 89/90号变速箱润滑油, 130°C
- ✓ 绝缘油, 23°C

标准燃油

- ✗ ISO 1817 燃油1号, 60°C
- ✗ ISO 1817 燃油2号, 60°C
- ✗ ISO 1817 燃油3号, 60°C
- ✗ ISO 1817 燃油4号, 60°C
- ✓ 不含酒精的标准燃油(优先使用C类ISO 1817 燃油), 23°C
- ✓ 含酒精的标准燃油(优先使用4号ISO 1817 燃油), 23°C
- ✓ 柴油(优先使用F类ISO 1817液体), 23°C
- ✓ 柴油(优先使用F类ISO 1817液体), 90°C
- ✗ 柴油(优先使用F类ISO 1817液体), >90°C

盐溶液

- ✓ 氯化钠溶液(10g/100g), 23°C
- ✓ 次氯化钠溶液 (10g/100g), 23°C
- ✓ 碳酸钠溶液 (20g/100g), 23°C
- ✓ 碳酸钠溶液 (2g/100g), 23°C
- ✓ 氯化锌溶液 (50g/100g), 23°C

其它

- ✓ 乙酸乙酯, 23°C
- ✗ 过氧化氢, 23°C
- ✗ DOT4号刹车油, 130°C
- ✗ 乙二醇水溶液 (50g/100g), 108°C
- ✓ 1g/100g 基苯氧- 聚环氧乙烷乙烯水溶液, 23°C
- ✓ 油酸 (50g/100g) + 橄榄油 (50g/100g), 23°C
- ✓ 水, 23°C



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- ✘ 去离子水, 90°C
- ✓ 酚溶液(5g/100g), 23°C

Symbols used:

- ✓ possibly resistant
Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).
- ✘ not recommended - see explanation
Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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